

U.S. Patent Application Serial No. 10/502,058

Amendment filed September 5, 2006

Reply to OA dated May 5, 2006

AMENDMENTS TO THE CLAIMS:

Claims 1-17 are presented for examination. Claims 1, 11-15, and 17 have been amended.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A method for preparing a purple corn ~~color~~ coloring agent, which comprises the steps of passing a purple corn ~~color~~ coloring agent extract solution through an adsorption resin, washing the resin with water, and desorbing a purple corn ~~color~~ coloring agent from the resin using 25 to 45% v/v hydroalcoholic solution as a desorption solution.

Claim 2 (Original): The method according to claim 1, wherein the purple corn color extract solution is an acid water or an aqueous acid solution containing no more than 20% v/v alcohol.

Claim 3 (Original): The method according to claim 1, wherein after washing the resin with water, 1.5 to 2.5 times as much desorption solution as the resin by volume is passed through the resin at a SV (space velocity) of 0.8 to 1.5.

Claim 4 (Original): The method according to claim 1, wherein the adsorption resin is a cross-linked styrene porous polymer.

Claim 5 (Original): The method according to claim 1, which comprises as a process for eliminating fumonisins the steps of passing a purple corn color extract solution through an adsorption resin, washing the resin with water, and desorbing a purple corn color from the resin using 25 to 45% v/v hydroalcoholic solution.

Claim 6 (Original): A method for preparing a purple corn color, which comprises the step of subjecting an adsorption-treated solution obtained by the method of claim 1 to at least one treatment selected from adsorption treatment, ion exchange treatment, acid treatment, extraction treatment and membrane separation treatment.

Claim 7 (Original): The method according to claim 6, wherein the membrane separation treatment is carried out after a method of claim 1.

Claim 8 (Original): The method according to claim 6, wherein the membrane separation treatment is at least one of reverse osmosis membrane treatment or ultrafiltration membrane treatment.

Claim 9 (Original): The method according to claim 7, wherein the acid treatment is carried out before the membrane separation treatment.

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Claim 10 (Original): The method according to claim 9, wherein the acid treatment is carried out under high-temperature condition.

Claim 11 (Currently Amended): A purple corn ~~color~~ coloring agent obtained by the method of claim 1, which is characterized in being free of fumonisins.

Claim 12 (Currently Amended): The purple corn ~~color obtained by the method of claim~~ coloring agent according to claim 11, wherein the concentration of the odor components is not higher than 150 ppm when the purple corn color is adjusted to a color value of $E_{1\text{cm}}^{10\%}=60$.

Claim 13 (Currently Amended): The purple corn ~~color~~ coloring agent according to claim 12, wherein the odor component is at least one member selected from the group consisting of acetic acid, malonic acid diethyl ester, 4-vinyl-2-methoxyphenol and 4-vinylphenol.

Claim 14 (Currently Amended): The purple corn ~~color obtained by the method of claim~~ coloring agent according to claim 11, wherein the total concentration of acetic acid, malonic acid diethyl ester, 4-vinyl-2-methoxyphenol and 4-vinylphenol is not higher than 20 ppm when the purple corn coloring agent ~~color~~ is adjusted to a color value of $E_{1\text{cm}}^{10\%}=60$.

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Claim 15 (Currently Amended): A purple corn color composition comprising a purple corn ~~color of claims 1~~ coloring agent of claim 11.

Claim 16 (Previously Presented): The method according to claim 1, wherein the desorption solution is 28 to 45% v/v hydroalcoholic solution instead of 25 to 45% v/v hydroalcoholic solution.

Claim 17 (Currently Amended): A method for eliminating fumonisins that can be present in a purple corn ~~color~~ coloring agent, the fumonisins being produced by molds occurring on a purple corn, which comprises the steps of passing purple corn ~~color~~ coloring agent extract solution through an adsorption resin, washing the resin with water, and desorbing a purple corn ~~color~~ coloring agent from the resin using 25 to 45% v/v hydroalcoholic solution as a desorption solution.